

## What was the vSim for nursing practice experience?

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### **Abstract**

*The study is a phenomenological analysis of the video simulation clinical practice experience recently conducted on nursing students due to the outbreak of corona 19 worldwide. A total of eight students participated in the vSim class who understood the purpose of the study and wanted to participate voluntarily. The data collection conducted a total of three interviews until no new data was available, and the collection period was from June 22, 2020 to July 10, 2020. The collected data were analyzed with the Giorgi's Phenomenological Analysis Method. As a result of the study, three components and 13 semantic units were derived. vSim was difficult for students, but it was an interesting experience that made them feel like nurses, and it was an experience in which they were immersed in learning rather than face-to-face classes, and their skills improved.*

**Keywords:** Nursing students, Phenomenology, vSim for nursing practice

### **1. Introduction**

Recently, as an information society, knowledge and information are acting as major competitive factors [1]. Thus, the method of teaching-learning of fragmentary knowledge or content could not be an active countermeasure to the rapidly changing future society. As a result, active changes in the existing method of teaching are needed, and the method of teaching using video is drawing attention. In particular, with many people having to avoid staying in one place due to the recent Corona 19 infectious disease around the world, video classes have been forced to be operated as part of a way to sustain the curriculum. In subjects that involve practice, such as life, the learning experience is made concrete and lively at an abstract level by using images before and after the experiment. In particular, nursing, which is a practical study, requires that nursing be provided to people, and studies that focus on individualization of nursing interventions depending on the circumstances, need to actually experience virtual simulations. The video simulation for nursing practice was developed accordingly.

Video class is a dynamic system that encompasses a series of courses and results to effectively implement educational purposes using the media [2]. In other words, video teaching is to supplement school education through the medium of video. In contrast to the limited space, manpower, facilities, and data provided by

school education, video teaching methods have characteristics such as wide-ranging, mass, and fast-paced media, so supplementing school education using this method can improve the quality of education [3]. The following is a summary of video teaching methods: First, video classes are the concept of expanding the method of school education. Second, learners can meet various levels of education for learners through repetitive learning in the media. Third, video classes can improve education levels by observing areas that are difficult for learners to actually observe through simulation. Therefore, the Media class is learning to do the vivid to deliver the objective and up-to-date information and compressed and can learn for me. Due to these characteristics, video teaching methods can be easily learned anywhere, so they can be said to have mass and wide range. In addition, video classes can be a way for learners who are familiar with traditional learning to pay attention and focus on the class, and learning knowledge through direct experience is also an effective way to learn [4]. And already, modern learners are the generation that makes easy use of YouTube video materials, where vast amounts of video material are uploaded, so video classes are not difficult to accept.

As a way of education, the video media is rapidly spreading to people to acquire information and knowledge and to enjoy it. In the present era, learners were freed from the constraints of time and space by accessing video media, forming a culture of acquiring various information through various video media. Video media stimulates learners' new perceptions and imaginations and intermixes the memories of space and time, thereby increasing learners' chances of interpretation [5]. Therefore, these learners need an educational approach that has a positive effect on utilizing teaching methods of video media utilization.

Nursing is a practical study and based on school theory education, it has the characteristic of actually applying professional knowledge and skills to the subjects of nursing field through clinical practice [6]. Through clinical practice, nursing students will experience the learning of various nursing sites, develop the basic competency of nurses, and prepare their performance ability to cope with the changing needs of the clients [7]. Clinical practice will also develop critical thinking, analytical skills, communication skills, and time management skills required to perform their duties, and increase their confidence to perform their duties as nurses [8]. Nursing studies should learn theory-based nursing techniques because of their complex and constantly changing environment, and then learn them in a practical clinical practice environment [9]. Clinical practice in which nursing theory is actually applied is a very important curriculum in prospective nursing major. However, it is reported that these essential courses of clinical practice experience conflict, stress, fear, anxiety, and fatigue among nursing students due to practical differences between theory and practice [10]. Although the degree of clinical practice varies depending on the individual, nursing students experience various kinds of stress due to lack of experience. Therefore, as part of a complementary method, simulation of the subject's situation before clinical practice is emerging as a good countermeasure. Video simulation for nursing practice was developed by these needs. However, the program consists of English and has not yet been active in Korean nursing education. However, in 2020, due to the global popularity of Corona 19, clinical practice was difficult, and it was introduced to nursing colleges as a desperate measure. The application of video simulation for nursing practice in a situation where the effectiveness of clinical practice methods and training has not been verified has become deeply concerned as a professor of nursing. Accordingly, from the perspective of educators and scholars, it was a meaningful study to understand what the application of video simulation for nursing practice was like for nursing students. It is also meaningful in determining which direction to apply to the education of the parents with the results of the district. Accordingly, the specific objectives of this study are as follows: What was the experience of video simulation for nursing practice?

## **2. Method**

Due to the recent outbreak of infectious diseases worldwide, clinical practice has become impossible.

Nursing is a practical study and has the characteristics to apply the theory directly in clinical practice, so it is an unexpected situation, but clinical practice had to be conducted. Thus, the university conducted video simulation of the clinical practice of nursing students. However, since the effect was not verified, it was necessary to analyze the characteristics and experiences of VSIM as a professor and scholar. To be a good phenomenological qualitative research result, it is the creativity of collecting appropriate and sufficient data and data analysis [11]. Accordingly, data collection was carried out in the selection of research participants.

## 2.1 Procedure

Qualitative sampling requires two principles: adequacy and sufficiency. The appropriateness of sampling can be satisfied by an expedient extraction method that, depending on the subject and purpose of the study, knows which person is most appropriate as a study participant and sets its target. For the sake of sufficient data, in-depth interviews with study participants can be met by collecting no more new data and all negative cases until investigated. Therefore, non-probability samples were used to find participants who could provide a lot of insight into the phenomenon in the selection of study participants [12]. In other words, students from 20 to 30 years of age were selected to participate in the video simulating practice to explore specific aspects of the phenomenon in detail, and people who could actively participate in interviews were selected to select people who would provide a lot of information on the subject. The specific criteria of the participants in this study were as follows: First, research participants were selected as research participants in Video Simulation for nursing practice at the time of the survey, aged 20 to 30. Second, the Video Simulation for nursing practice experience was based on prior studies such as [13-16] and various research participants were organized to ensure sufficient illumination of Video Simulation for nursing practice. Third, after explaining the purpose of the research on this study, it was composed of people who promised to understand and actively participate in this study.

## 2.2 Participants

Participants in the study consisted of people who understood the purpose of the study and wished to participate in the study voluntarily, with a total of eight men, five women, and three women (Table 1). They were 22 to 28 years old. The participants' grades consisted of four high, three middle and one low.

**Table 1. Participants**

<b>Participants</b>	<b>Gender</b>	<b>Age</b>	<b>Grade</b>
<b>1</b>	<b>Female</b>	<b>22</b>	<b>High</b>
<b>2</b>	<b>Male</b>	<b>25</b>	<b>High</b>
<b>3</b>	<b>Male</b>	<b>26</b>	<b>High</b>
<b>4</b>	<b>Female</b>	<b>23</b>	<b>High</b>
<b>5</b>	<b>Female</b>	<b>21</b>	<b>Middle</b>
<b>6</b>	<b>Male</b>	<b>22</b>	<b>Middle</b>
<b>7</b>	<b>Male</b>	<b>23</b>	<b>Middle</b>
<b>8</b>	<b>Male</b>	<b>28</b>	<b>Low</b>

## 2.3 Data Collection

For the preparation and course of the interview conducted in this study, the researchers found participants in the study who could speak frankly about how nursing students are experiencing their vSim practice experience. The participants were interviewed after explaining the study to the participants and confirming their willingness to participate in the study. The process of filling out the interview questionnaire used for the

interview in this study was as follows. Consider the preceding study on vSim [11-16], Open in-depth interviews consist of three consecutive structures: the initiation of vSim, the impact it has on the participants themselves, and the meaning of the VSIM experience [17]. Interviews were held three times for each participant from June 22 to July 10, 2020, and took an average of more than three hours per session, and all of the interviews were recorded with the consent of the participants. The interview process centered on semi-structured questionnaires made by the researchers. After the first and second interviews, it was confirmed that there was no difference from what was stated to the study participants, and any insufficient or questionable questions were confirmed and supplemented through additional questions. In addition, a research journal was prepared that included on-site notes that recorded the human characteristics of study participants, feelings of verbal and non-verbal expressions and behaviors observed during interviews, what researchers should be aware of, and data needed for analysis.

### 2.3 Data Analysis

This study used Giorgi's Phenomenological Analysis Method [18], which focused on revealing the meaning of the living experience through in-depth interviews of research participants' skills. Giorgi's method of research consists of 'total recognition', 'identification of units of significance', 'transformation into academic terms of significance' and 'integration into structure'. Accordingly, this study conducted the following analyses in context: ① In order to get the feeling from the data, the subject's technique was read over and over again. ② The ambiguous part of the technical statement asked the participant again to confirm the exact meaning. ③ A unit of technology expressing participants' own experiences was identified, literally, by means of different expression forms or vocabulary, but of the same meaning. ④ The themes that represent the vivid experience of participants at each unit have been identified. ⑤ The focus meaning of the subject's experience was identified in the researcher's language to clarify the subject. ⑥ The central meaning was integrated into a situated structural description of the meaning of the experience from the perspective of the participants. ⑦ The meaning of experience from the perspective of the entire participant was written as a general structural statement by integrating context and structural technical statements. As above, the data collection and analysis process were conducted simultaneously, underlining the areas where the meaning of the research participants' experience is well revealed, and asking questions again where there are different technical contents between the meanings of the experiences. This process was repeated to derive semantic units. As a result, 102 semantic units were derived from 8 study participants. The analysis was used except for the units that were duplicated or deviated from the structure among the derived semantic units.

### 3. Result

The meaning of vSim participation experience derived from the phenomenological analysis procedure of Giorgi consists of three components and 14 semantic units (Table 2). A typical example of this for each subcomponent is described below. vSim **participation experience Component 1**. Difficulties: 'Becoming troubled', 'Difficult', 'Nervous', 'Anxiety', 'Darkness' and 'Effort' were stated, which shows that VSIM was being taken with difficulty. vSim **participation experience Component 2**. Joy: 'Fun' and 'Feeling like a nurse' were stated, which was taking vSim as a pleasant experience, such as learning it as if it were a game, and feeling like a nurse was real. vSim **participation experience Component 3**. Rising: 'Importance of English', 'Different', 'Save well', 'Rising' and 'growth' were stated, which felt that they had grown on their own before learning through VSIM experience.

Table 2. vSim Experience

Elemental Factors	Semantic Unit
<b>Difficulties</b>	Becoming troubled
	Difficult
	Nervous
	Anxiety
	Darkness
<b>New changes are difficult, But the Level of Knowledge rises with joy</b>	Effort
<b>Joy</b>	Fun
	Feeling like a nurse
<b>Rising</b>	Importance of English
	Different
	Save well
	Rising
	Growth

### 3.1 Elemental Factors 1. Difficulties

vSim experience appeared to nursing students with 'Becoming troubled', 'Difficult', 'Nervous', 'Anxiety', 'Darkness', 'Effort'. Typical statements include:

*When I heard the urgent sound from the video, I thought a lot about what to do in real life.*

*The video was in English, so I was at a loss when I turned the translator.*

*I became more focused and careful on the literature review because I was at a loss.*

*Especially, it was difficult to understand the doctor's order.*

*It was hard to solve the quiz even after the simulation.*

*It's a virtual simulation, but I was very nervous to hear the subject breathing.*

*At first, I was at a loss, but my fear was reduced through the presentation of the case study.*

*I was nervous to hear the harsh breathing and the painful sound.*

*I was embarrassed because the professor said it was in English, but it was even more dizzying in reality.*

*I thought I should try harder.*

### 3.2 Elemental Factors 2. Joy

vSim experience has made nursing students feel 'Fun' and 'Feeling like a nurse', with typical statements as follows.

*I was thinking about the patient's reaction to my mediating nurse, and it was fun.*

*It was a new feeling to actually do what I learned in theory.*

*We knew we could actually help the target.*

*As a nurse, I felt I needed Dr. Order's judgment.*

*By choosing nursing interventions, I felt like a real nurse.*

*I've come to think of nursing before I do it.*

*As a nurse, I felt responsible for knowing the normal level of the test.*

*I've come to think about the capacity of a nurse in a clinical trial.*

*It was thrilling because I had to choose nursing through a scenario that was not already set.*

### **3.3 Elemental Factors 3. Rising**

vSim experience made nursing students feel the 'Importance of English', 'Different', 'Save well', 'Rising', 'Growth', and the representative statement was as follows.

*As the video is in English, I felt the importance of English that you have emphasized so far.*

*Through simulation, I learned the importance of the theoretical basis of nursing arbitration.*

*We've realized the importance of observing the signs of the subject.*

*I certainly felt that the theory was different from reality when I practiced it through the video.*

*It was a valid program to apply the theory.*

*I think learning by simulating theory was a special way of teaching.*

*I think it's saved well in my head because I'm learning by simulating it.*

*Through the simulation, he realized that his choices were different.*

*As a result of my selection, I received feedback and realized that patient monitoring was important.*

*Seeing the effects of my choice of mediating nursing, I felt my knowledge rising.*

*It was a good experience to know what to do and what not to do.*

*It was the first time that I actually did a deep research because I realized the importance of nursing arbitration.*

## **4. Conclusion**

This study was a phenomenological analysis of vSim experience among eight participants. Phenomenology refers to the development of the mind from Hegel philosophy to absolute perception, which refers to the study of empirical phenomena in relation to the study of the body and nature.

Nursing is a practical study and has a practical course to apply theory through practice in the hospital. Due to the unexpected outbreak of infectious diseases around the world, face-to-face classes, which had been continuing, were conducted non-face-to-face, and the nursing department conducted vSim classes instead of clinical practice. However, the first video practice has not been verified as a substitute for clinical practice. Therefore, it is an urgent research task to find out what the vSim practice was like for nursing students. vSim was produced in English, so it must have been a burden for Korean students from the beginning. They had expected it to be difficult before they could even begin, but it was unavoidable because it was a regular curriculum class. Students showed an attitude of listening attentively to the orientation of the departmental professor, and the departmental professor also encouraged them to understand these students' situations and explain vSim as easily as possible and enjoy it. VSIM, which began in this way, showed students difficulties such as anxiety and sensitivity at the beginning. In the meantime, the students were trying to adapt.

Students began to have fun while they were nervous and doing their best every second during the exercise because the situation changed according to their choice. Although mistakes are not tolerated in hospital practice because they deal with real patients, vSim can try them again and make different choices depending on the results. Then the students found themselves again the theory of nursing behavior. Most of all, it was a very interesting experience to feel like a nurse, not a nursing student, actually. They were more nervous and focused than passively attending classes as they worked out the difficult parts one by one, leaving more memories of learning. The students felt their skills improved because they were actively engaged in learning. vSim was an experience that made the theory a little more interesting by applying it to practice.

## References

- [1] Afshin A, Babalola D, Mclean M, Yu Z, M W, Chen CY, Arabi M, Mozaffarian D, Information Technology and Lifestyle: A Systematic Evaluation of Internet and Mobile Interventions for Improving Diet, Physical Activity, Obesity, tobacco, and Alcohol Use, *J Am Heart Assoc*, Vol. 31, No. 5(9), 2016, DOI: 10.1161/JAHA.115.003058.
- [2] YM Kim, A Study on the Improvement of TV Program for School Science Education, *Korean Education*, Vol. 15, pp. 36, 1989.
- [3] Hillman T, Sherbino J, Social media in medical education: a new pedagogical paradigm, *Post grad Med J*, Vol. 91, No. 1080, pp. 544-545, 2015, DOI: 10.1136/postgradmedj-2015-133686.
- [4] YG Lee, A Study on the Application of Short Film for Task-Based Teaching, *German Education*, Vol. 47, 2010.
- [5] SI Oh, What is video media, *Communication Books*, 2005, pp. 82.
- [6] Dunn, S. V., Hansford, B., Undergraduate Nursing Students' Perceptions of their clinical learning environment, *Journal of advanced nursing*, Vol. 25, No. 6, pp. 1299-1306, 1997.
- [7] MA Park, Self-leadership, Clinical Practice Stress and Countermeasures of Nursing Students, Master's Degree thesis, Kyungpook National University, 2009.
- [8] Lofmark, A., & Wikblad, K., Facilitation and obstructing factors for development of learning in clinical practice: a student perspective, *Journal of Advanced Nursing*, Vol. 40, pp. 43-46, 2001.
- [9] Cope. P., Cuthbertson P., & Stoddart, Situated learning in the practice placement, *Journal of Advanced Nursing*, Vol. 31, pp. 850-856, 2000.
- [10] MY Park, The experience of stress and anger related to clinical practice of nursing students, *Journal of the Korean Association of Nursing Education*, Vol. 7, No. 1, pp. 7-21, 2001.
- [11] GR Shin Translation, *Quality Nursing Research Method*, Seoul: Ewha Women's University Press 1997.
- [12] Peters K, Halcomb e, Interview in qualitative research, *Nurse Res*, Vol. 22, No. 4, pp. 6-7, 2015, DOI: 10.7748/nr.22.4.6.s2.
- [13] EY Yeom, The Perception Types of Nursing Students in Team-Based Simulation Learning: An Application of Q-Methodology, *Association of Subjectivity Research in Korea*, Vol. 32, pp. 24-47, 2016.
- [4] HS Shin, KK Shim, Nursing Student's Experiences on Pediatric Nursing Simulation Practice. *East-West Nursing Science Laboratory*, Vol. 16, No. 2, pp. 147-155, 2010.
- [15] YS Roh, ES Cho, WS Lee, Analysis of Main Instructional Design Factors for Simulation Integrated PBL Nursing Courses, *Korean Association of Education and Information Media*, Vol. 16, No. 1, pp. 125-143, 2010.
- [16] YA Song, YJ Son, Effects of Simulation-based Practice Education for Core Skill of Maternity Nursing, *Journal of the parents' and children's health society*, Vol. 16, No. 1, pp. 37-44, 2013.
- [17] Seidman, I. *Interviewing as qualitative research*. New York: Teachers College Press. 1998.
- [18] Giorgi, A. The phenomenological psychology of learning and the verbal learning tradition, In A. Giorgi, (Ed.), *Phenomenology and psychological research*, Pittsburgh: Duquesne University Press, 1985.